WHAT IS CLAIMED IS:

1.   A system for realizing a base station controller in a compact PCI, in a mobile communication system including a plurality of BTSs, comprising:

5   a compact base station controller main processor block (CMPB) which includes a compact base station controller main processor assembly (CMPA) and a rear processor interface assembly (RPIA), for managing call processing in base stations and compact base station controllers and controlling the system;

a mobile station controller interface block (MIB) which is interfaced with the 10 CMPB through a compact PCI and includes a mobile station controller vocoder interface and switching assembly (MVSA) and a rear mobile station controller interface assembly (RMIA) to provide an interface function and generate a reference clock;

a BTS interface block (BIB) which is connected to the BTSs and includes a base station controller vocoder interface and a router assembly (BVRA) and a rear base 15 station controller interface assembly (RBIA) to route control data to the CMPB;

a transcoder and selector bank (TSB) which is connected to the BIB and includes a compact base station controller vocoder operation assembly (CVOA), a vocoder extension buffer assembly (VERA) and a rear vocoder extension interface assembly (RVIA) to perform vocoding and selecting functions.

20   a back plane for providing a compact PCI bus, H.110 and I/O bus to the CMPB; and

a system interface for performing interfacing among mobile station controllers, BTSs and compact base station controllers.

2.   The system as claimed in claim 1, wherein the CMPA as a main processor of the compact base station controllers takes charge of management of call resources in the base stations and the compact base station controllers, operator interface, processing and managing failures/alarms, status management, system

5   diagnostics management, processing base station controller calls, system form management, system loading and processing statistics.

3.   The system as claimed in claim 1, wherein the RPIA supports an Ethernet port for executing operation and maintenance of one to three compact base

10 station controllers.

4.   The system as claimed in claim 1, wherein the MVSA manages mobile station controller trunks connected to the mobile station controllers and executes an IS-634 (A) interface, vocoder switching, an IWF interface and generation of a

15 reference clock, the MVSA being interfaced with the CMPA using the compact PCI bus.

5.   The system as claimed in claim 1, wherein the RMIA provides an E1/T1 trunk node for interfacing with the mobile station controllers.

20   6.   The system as claimed in claim 1, wherein the BVRA manages BTS trunks connected to the BTSs and routes all control data transmitted to the CMPA.

7.   The system as claimed in claim 1, wherein the RBIA provides an E1/T1 fractional E1 interface, extended compact base station controller HDSL packet

data interface, and H.110 relay link interface with the BTSs.

8.   The system as claimed in claim 1, wherein the system interface corresponds to channeled E1/T1 that is the interface between the mobile station controllers and the compact base station controllers, IS-634(A), E1/T1 fractional E1.IPC that is the interface between the BTSs and compact base station controllers, RS-422. IPC that is GW interface with the compact base station controllers, TCP/IP that is Ethernet between the compact base station controllers and base station operation system interface, H.110 that is the interface between a main shelf and a extension shelf, a compact PCI that is the interface between the main processor router and a switch, and H.110 that is the interface between a vocoder router and the switch.